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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michael Meyer

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7590

03/02/2004

ERICSSON INC.  
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EXAMINER

BLOUNT, STEVEN

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
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DATE MAILED:

Below is a communication from the EXAMINER in charge of this application

COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

*Ajit Patel*  
Primary Examiner

☒ THE PERIOD FOR RESPONSE:

- a) ☐ is extended to run \_\_\_\_\_ or continues to run \_\_\_\_\_ from the date of the final rejection
- b) ☒ expires three months from the date of the final rejection or as of the mailing date of this Advisory Action, whichever is later. In no event however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

☐ Appellant's Brief is due in accordance with 37 CFR 1.192(a).

☒ Applicant's response to the final rejection, filed 2/17/04 has been considered with the following effect, but it is not deemed to place the application in condition for allowance:

1. ☐ The proposed amendments to the claim and/or specification will not be entered and the final rejection stands because:
- a. ☐ There is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.
  - b. ☐ They raise new issues that would require further consideration and/or search. (See Note).
  - c. ☐ They raise the issue of new matter. (See Note).
  - d. ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
  - e. ☐ They present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE:

2. ☐ Newly proposed or amended claims \_\_\_\_\_ would be allowed if submitted in a separately filed amendment cancelling the non-allowable claims.
3. ☒ Upon the filing an appeal, the proposed amendment ☐ will be entered ☐ will not be entered and the status of the claims will be as follows:

Claims allowed: 15  
Claims objected to: \_\_\_\_\_  
Claims rejected: 1-3, 6-7, 9-13, 17-18, 35-49

However:

☐ Applicant's response has overcome the following rejection(s): \_\_\_\_\_

4. ☒ The affidavit, exhibit or request for reconsideration has been considered but does not overcome the rejection because See attachment

5. ☐ The affidavit or exhibit will not be considered because applicant has not shown good and sufficient reasons why it was not earlier presented.

☐ The proposed drawing correction ☐ has ☐ has not been approved by the examiner.

☐ Other

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## DETAILED ACTION

### *Claim Rejections - 35 U.S.C. § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 - 3, 6 - 7, 9 - 13, 17 - 18, and 35 - 49 are rejected under 35 U.S.C. 103(a) as being obvious over Applicants Admitted Prior Art (hereinafter AAPA) in view of U.S. patent 5,974,028 to Ramakrishnan.

With regard to claim 1, AAPA teaches (see page 2) dividing the data into a plurality of units and sending them from the sender to the receiver, sending acknowledgements (page 1), detecting failure and retransmitting (page 2 par. 2). AAPA also teaches problems associated with congestion, where a congestion window "is intended to take into account the congestion along the connection between the sending peer and receiving peer" (page 4, 4th paragraph). AAPA teaches that "In TCP, the time-out response consists in retransmitting the data that was sent (page 2, lines 11+).

AAPA does not however teach using an adaptive parameter which acts as a flow control procedure including the steps of 1) performing an excessive delay response procedure upon determining that at least one data unit was correctly received and, together with 2) performing a

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data unit loss response procedure upon determining that the received acknowledgment data indicates the at least one data unit was correctly received as a result of the retransmitting step.

Ramakrishnan teaches solutions to the problem associated with situations involving both congestion in the system, and where packets are being retransmitted due to errors in the packets:

“The present invention avoids sending duplicate acknowledgments and invoking a congestion mechanism when packets are received with bit errors due to the lossy link and not due to congestion. If congestion, however, is a source of error over links other than the wireless link, acknowledgments indicate that congestion that congestion is the source of error and that it would be appropriate for this system to invoke congestion mechanisms.” (Col 3, lines 20+). Further, Ramakrishnan teaches 1) invoking congestion control mechanisms as described in col 6, lines 28+ “where packet 34 is not received at all due to congestion” and 2) performing a data loss response procedure in response to *the equivalent of a retransmitting step*, IE, the sending of selective acknowledgment packets as described in col 4 lines 55+ and col 1 lines 55+ (note the discussion above with respect to AAPA, where it is noted that AAPA teaches retransmission).

—Kapoor teaches that congestion may be due to late (IE, correctly received) or dropped packets (as mentioned in Ramakrishnan). See column 2, lines 20+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided AAPA with a mechanism for implementing a response to both excessively delayed packets and retransmitted packets, in light of the teachings of Ramakrishnan and Kapoor, in order to provide a system which has proper flow control.

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With regard to claim 2, a timer (inherent in the timeout period) is mentioned in col 5 lines 4+;

with regard to claim 3, duplicate data units and the fact that they signal failure is taught in page 5, second paragraph of AAPA;

With regard to claim 6, time out is taught in col 5, lines 7+;

With regard to claim 7, sliding window flow control is taught in AAPA, page 3, second paragraph;

With regard to claims 9 - 10, marking data units in the SACK is taught in col 7, lines 58+, and it would be obvious to do this to both the packets sent and those received;

With regard to claims 11 and 13, having a bit string used to do this as opposed to a bit (see above) is an obvious variation;

With regard to claim 12, note that Ramakrishnan teaches the use of a single bit;

With regard to claim 17, see the description of the timeout period in column 6, lines 29+;

With regard to claim 18, see the description of the windowing procedure in AAPA;

With regard to claims 35 - 47, the apparatus limitations are all present in the method claims described above;

With regard to claims 48 - 49, see the rejection of claim 1 above, where adaptive flow control is taught to be carried out using windowing (AAPA), sending SACK packets with a bit map (Ramakrishnan, col 4 lines 58+) in combination with a timer, and also the use of SACK

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packets as taught in col 7, lines 55+, and note the discussion of the method of responding to congestion in col 6, lines 13+.

3. Applicants arguments are deemed moot in view of the new grounds of rejection.
4. Claim 15 is allowed.

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

SB



2/26/04